



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/566,252 | 01/30/2006 | Masaaki Nagasawa | 285114US0PCT | 5752 |

22850 7590 10/13/2006

C. IRVIN MCCLELLAND
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

| |
|----------|
| EXAMINER |
|----------|

AULAKH, CHARANJIT

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1625

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/566,252

Applicant(s)

NAGASAWA ET AL.

Examiner

Charanjit S. Aulakh

Art Unit

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>1/30/06, 4/19/06</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. According to a preliminary amendment filed on March 3, 2006, the applicants have amended claims 1-9.
2. Claims 1-9 are pending in the application.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following eight different factors (see *Ex parte Foreman*, 230 USPQ at 547; *Wands*, In re, 858.F. 2d 731, 8 USPQ 2d 1400, Fed. Cir. 1988) must be considered in order for the specification to be enabling for what is being claimed:

Quantity of experimentation necessary, the amount of direction or guidance provided, presence or absence of working examples, the nature of the invention, the state of the prior art, the relative skill of those in the art, the predictability or unpredictability and the breadth of claims. In the instant case, the specification is not enabling based on at least four of the above mentioned eight different factors such as quantity of experimentation necessary, the amount of direction or guidance provided, the state of the prior art, presence of working examples, unpredictability and the breadth of claims.

Art Unit: 1625

The specification teaches inhibitory effect of instant compounds on NK-1 and NK-2 receptors in vitro (see tables 2-4 on pages 313-314). However, there is no teaching or guidance present in the specification how the instant compounds having inhibitory effect on NK-1 and /or Nk-2 receptors in vitro will have utility for treating irritable bowel syndrome, pain, anxiety, obstructive bronchial diseases, headache or vomiting following their in vivo administration. There is lot of unpredictability in correlating in vitro effect of a compound to its in vivo activity. It is well known in the art that in vitro activity does not necessarily correlate with in vivo activity of a compound since unlike in vitro activity, in vivo activity is affected by various factors such as absorption, metabolism and influence of hormones etc. There is no teaching either in the specification or prior art that hyperactivity of NK-1 and/or NK-2 receptors is implicated in the etiology of irritable bowel syndrome, pain, anxiety, obstructive bronchial diseases, headache or vomiting. There are no working examples present showing efficacy of instant compounds in known animal models of irritable bowel syndrome, pain, anxiety, obstructive bronchial diseases, headache or vomiting. There is no teaching in the specification or prior art references provided showing well known utility of structurally closely related compounds having inhibitory effects on NK-1 and/or NK-2 receptors in vitro for treating of irritable bowel syndrome, pain, anxiety, obstructive bronchial diseases, headache or vomiting. The instant compounds of formula (1) encompasses several hundreds of thousands of compounds based on the values of variables R1-R5, X1-X4, n1 and n2 and therefore, in absence of such teachings, guidance, presence of working examples, the state of the prior art and unpredictability, it would require undue experimentation to demonstrate the

Art Unit: 1625

efficacy of instant compounds in animal models of irritable bowel syndrome, pain, anxiety, obstructive bronchial diseases, headache and vomiting and hence their utility for treating these disease conditions.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "derivative" in claims 1-9 is a relative term which renders the claim indefinite. The term "derivative" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The applicants are suggested to delete this term or replace it with the term —compound—.

In claim 1, the applicants are suggested to delete ---) --- after phenoxy carbonyl group in the definition of variable R1 and delete --- (----before wherein a ring hydrogen for the definition of variable R2 on page 6.

In claims 6 and 8, the term —drug—is vague and indefinite since it is not clear what are the other ingredients present? Does it contain other active ingredients besides compounds of formula (1)? The applicants are suggested to use the term — pharmaceutical composition --- in claim 6.

Art Unit: 1625

In claim 8, the steps for producing or preparing drug containing compounds of formula (1) are missing.

Allowable Subject Matter

7. The following is a statement of reasons for the indication of allowable subject matter:

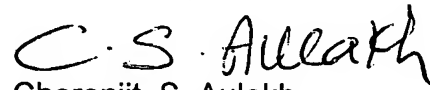
The instant compounds of formula (1) are allowable over the prior art since they are neither disclosed nor obvious over the prior art. In the prior art, Hale (U.S. Patent 5,869,496) discloses spiro-substituted azacycles as tachykinin receptor antagonists which are related to instant compounds. However, the compounds of Hale (see examples 1-74 and claim 6) differ in structure from the instant compounds in lacking the instant N-R5 group and furthermore, there is no teaching, suggestion or motivation in the prior art to modify the compounds of Hale to prepare the instant compounds.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charanjit S. Aulakh whose telephone number is (571)272-0678. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas McKenzie can be reached on (571)272-0670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Charanjit S. Aulakh
Primary Examiner
Art Unit 1625